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Technical Datasheet

Dulbecco's Modified Eagle Medium (DMEM), High Glucose

With 4.5gm Glucose per litre, L-Glutamine, 25mM HEPES buffer, Sodium pyruvate and Sodium bicarbonate
Without Phenol red

Product code: AL241A

Product Description:

Dulbecco's Modified Eagle Medium (DMEM) is one of the most widely used modification of Eagle's medium. DMEM is a modification of Basal Medium Eagle (BME) that contains four fold concentration of amino acids and vitamins. Additionally, the formulation also includes glycine, serine and ferric nitrate. The original formulation contains 1000mg/L of Glucose and was originally used to culture embryonic mouse cells.

DMEM high glucose is a further modification of original DMEM and contains 4500mg/L of glucose. The additional glucose has proved to be useful in cultivating various other cell lines including primary cultures of mouse and chicken cells as well as various normal and transformed cell lines.

AL241A is Dulbecco's Modified Eagle Medium with L-Glutamine, 4.5gms Glucose per litre, 25mM HEPES buffer, Sodium bicarbonate and Sodium pyruvate. It does not contain phenol red. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37ºC prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition:

Ingredients	mg/L
INORGANIC SALTS	
Calcium chloride dihydrate	265.000
Ferric nitrate nonahydrate	0.100
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Sodium bicarbonate	3700.000
Sodium chloride	6400.000
Sodium phosphate monobasic anhydrous	109.000
AMINO ACIDS	
Glycine	30.000
L-Arginine hydrochloride	84.000
L-Cystine dihydrochloride	62.570
L-Glutamine	584.000
L-Histidine hydrochloride monohydrate	42.000
L-Isoleucine	105.000
L-Leucine	105.000
L-Lysine hydrochloride	146.000
L-Methionine	30.000
L-Phenylalanine	66.000
L-Serine	42.000
L-Threonine	95.000
L-Tryptophan	16.000
L-Tyrosine disodium salt	103.790
L-Valine	94.000
VITAMINS	
Choline chloride	4.000
D-Ca-Pantothenate	4.000
Folic acid	4.000
Nicotinamide	4.000
Pyridoxal hydrochloride	4.000
Riboflavin	0.400
Thiamine hydrochloride	4.000
i-Inositol	7.200
OTHERS	
D-Glucose	4500.000
HEPES buffer	5958.000
Sodium pyruvate	110.000

Quality Control:

Appearance
Colourless, clear solution

pH
7.00 -7.60

Osmolality in mOsm/Kg H_2O
355.00 -395.00

Sterility
No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Cultural Response
The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts.

Endotoxin Content
NMT 1EU/ml

Storage and Shelf Life:
Store at 2-8°C away from bright light.
Shelf life is 12 months.
Use before expiry date given on the product label.

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